Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 4. (Cancelled)

5. (Currently Amended) ~~The image reading apparatus according to Claim 4,~~ An image reading apparatus for reading lines to be read on a surface of an original document in a sub-scanning direction and outputting image signals obtained by reading said lines to be read, comprising:

a reading unit having light sensing devices that are able to simultaneously read M (said M is a natural number being not less than two) pieces of lines to be read which are said lines to be read existing on said surface of said original document and which are different lines in said sub-scanning direction, each existing apart by N (said N is a natural number being not less than two) pieces of lines in said sub-scanning direction;

a moving unit to move one of said original document and said reading unit, every time said lines are simultaneously read, by L (said L is a natural number) pieces of said lines to be read, in said sub-scanning direction; and

an image signal outputting unit to output said image signals of said lines to be read which have been read by said reading unit in order of reading in said sub-scanning direction;

wherein values of said M, said N, and said L are set to values at which lines on said surface of said original document are able to be read without omission of reading lines when simultaneous and sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said original document; and

wherein values of said M, said N, and said L are set so that $M \geqq 2$, ~~$N \geqq 1 + M$~~ $N > 1 + M$, and $L = N - 1$.

6. – 7. (Cancelled)

8. (Currently Amended) ~~The image reading apparatus according to Claim 4,~~ An image reading apparatus for reading lines to be read on a surface of an original document in a sub-

scanning direction and outputting image signals obtained by reading said lines to be read, comprising:

a reading unit having light sensing devices that are able to simultaneously read M (said M is a natural number being not less than two) pieces of lines to be read which are said lines to be read existing on said surface of said original document and which are different lines in said sub-scanning direction, each existing apart by N (said N is a natural number being not less than two) pieces of lines in said sub-scanning direction;

a moving unit to move one of said original document and said reading unit, every time said lines are simultaneously read, by L (said L is a natural number) pieces of said lines to be read, in said sub-scanning direction; and

an image signal outputting unit to output said image signals of said lines to be read which have been read by said reading unit in order of reading in said sub-scanning direction;

wherein values of said M, said N, and said L are set to values at which lines on said surface of said original document are able to be read without omission of reading lines when simultaneous and sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said original document; and

wherein values of said M, said N, and said L are set so that $M \geqq 2$, ~~$1 < L \leqq M$~~ $1 \leq L < M$ and that a greatest common measure of values of said L and ~~said M~~ said N equals one.

9. (Cancelled)

10. (Currently Amended) The image reading apparatus according to ~~Claim~~ claim 8, wherein values of said M and said L are set so that $1 < 1 + L < 1 + M$.

11. – 18. (Cancelled)

19. (New) The image reading apparatus according to claim 5, wherein said image signal outputting unit includes:

an analog to digital converting circuit to analog to digital convert image signals of M pieces of lines to be read which have been output from said reading unit;

a storing device to store pixel data obtained by conversion by said analog to digital converting circuit; and

a reading control circuit to read said pixel data stored in said storing device in order of reading in said sub-scanning direction.

20. (New) The image reading apparatus according to claim 19,

wherein said reading unit starts said sequential reading operations from a line existing backward in said sub-scanning direction by a predetermined number of lines to be read that is determined based on values of said M, said N, and said L from said first line to be normally read and performs said sequential reading operations up to a line existing forward in said sub-scanning direction by said predetermined number of lines to be read that is determined based on values of said M, said N, and said L; and

wherein said storing device stores only said pixel data obtained by reading lines to be normally read and output from said analog to digital converting circuit.

21. (New) The image reading apparatus according to claim 20,

wherein said reading unit comprises a color reading device; and

wherein an image processing circuit for gray-level correction is provided between said storing device and said analog to digital converting circuit.

22. (New) The image reading apparatus according to claim 8, wherein said image signal outputting unit includes:

an analog to digital converting circuit to analog to digital convert image signals of M pieces of lines to be read which have been output from said reading unit;

a storing device to store pixel data obtained by conversion by said analog to digital converting circuit; and

a reading control circuit to read said pixel data stored in said storing device in order of reading in said sub-scanning direction.

23. (New) The image reading apparatus according to claim 22,

wherein said reading unit starts said sequential reading operations from a line existing backward in said sub-scanning direction by a predetermined number of lines to be read that is determined based on values of said M, said N, and said L from said first line to be normally read and performs said sequential reading operations up to a line existing forward in said sub-scanning direction by said predetermined number of lines to be read that is determined based on values of said M, said N, and said L; and

wherein said storing device stores only said pixel data obtained by reading lines to be normally read and output from said analog to digital converting circuit.

24. (New) The image reading apparatus according to claim 23,

wherein said reading unit comprises a color reading device; and

wherein an image processing circuit for gray-level correction is provided between said storing device and said analog to digital converting circuit.

25. (New) An image reading method for reading lines to be read on a surface of an object to be read in a sub-scanning direction and for outputting image signals obtained by reading said lines to be read, comprising:

setting a number M of lines (said M is a natural number being not less than two) that have to be simultaneously read, an interval N (said N is a natural number being not less than two) among said lines that have to be simultaneously read and which is specified in terms of lines, and a number L of lines (said L is a natural number) by which each of said lines to be read moves from said lines whose reading has been completed every time simultaneous reading is completed, such that $M \geqq 2$, $N > 1 + M$, and $L = N - 1$, and such that all of said lines to be read on said surface of said object to be read are able to be read when sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said object to be read;

reading said lines to be read on said surface of said object to be read by moving said lines by L lines in a sub-scanning direction when said simultaneous reading of M lines has been completed and by repeating said simultaneous reading on subsequent lines to be read; and

outputting said image signals obtained by reading said lines to be read.

26. (New) The image reading method according to claim 25,

wherein said first line to be read on said surface of said object is a line existing backward, from a first line to be normally read on said surface of said object, by a first predetermined number of lines to be read which is determined based on values of said M, said N, and said L, in said sub-scanning direction;

wherein said last line to be read is a line existing forward, from a last line to be normally read on said surface of said object, by a second predetermined number of lines to be read which is determined based on values of said M, said N, and said L, in said sub-scanning direction; and

wherein said image signals of said lines to be read are image signals of said first line to be normally read to said last line to be normally read.

27. (New) An image reading method for reading lines to be read on a surface of an object to be read in a sub-scanning direction and for outputting image signals obtained by reading said lines to be read, comprising:

setting a number M of lines (said M is a natural number being not less than two) that have to be simultaneously read, an interval N (said N is a natural number being not less than two) among said lines that have to be simultaneously read and which is specified in terms of lines, and a number L of lines (said L is a natural number) by which each of said lines to be read moves from said lines whose reading has been completed every time simultaneous reading is completed, such that $M \geqq 2$, $1 < L < M$, and a greatest common measure of values of said L and said N equals one, and such that all of said lines to be read on said surface of said object to be read are able to be read when sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said object to be read;

reading said lines to be read on said surface of said object to be read by moving said lines by L lines in a sub-scanning direction when said simultaneous reading of M lines has been completed and by repeating said simultaneous reading on subsequent lines to be read; and

outputting said image signals obtained by reading said lines to be read.

28. (New) The image reading method according to claim 27,

wherein said first line to be read on said surface of said object is a line existing backward, from a first line to be normally read on said surface of said object, by a first predetermined number of lines to be read which is determined based on values of said M, said N, and said L, in said sub-scanning direction;

wherein said last line to be read is a line existing forward, from a last line to be normally read on said surface of said object, by a second predetermined number of lines to be read which is determined based on values of said M, said N, and said L, in said sub-scanning direction; and

wherein said image signals of said lines to be read are image signals of said first line to be normally read to said last line to be normally read.

29. (New) An image reading apparatus for reading lines to be read on a surface of a document in a sub-scanning direction and outputting image signals obtained by reading said lines to be read, comprising:

a reading means having light sensing devices for simultaneously reading M (said M is a natural number being not less than two) pieces of lines to be read which are said lines to be read existing on said surface of said document and which are different lines in said sub-scanning direction, each existing apart by N (said N is a natural number being not less than two) pieces of lines in said sub-scanning direction;

a moving means for moving one of said document and said reading means, every time said lines are simultaneously read, by L (said L is a natural number) pieces of said lines to be read, in said sub-scanning direction; and

an image signal outputting means for outputting said image signals of said lines to be read which have been read by said reading means in order of reading in said sub-scanning direction;

wherein values of said M, said N, and said L are set so that $M \geqq 2$, $N > 1 + M$, and $L = N - 1$, and such that lines on said surface of said document are able to be read without omission of any of said lines to be read when sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said document.

30. (New) The image reading apparatus according to claim 29, wherein said image signal outputting means includes:

an analog to digital converting circuit to analog to digital convert image signals of M pieces of lines to be read which have been output from said reading means;

a storing device to store pixel data obtained by conversion by said analog to digital converting circuit; and

a reading control circuit to read said pixel data stored in said storing device in order of reading in said sub-scanning direction.

31. (New) The image reading apparatus according to claim 30,

wherein said reading means starts said sequential reading operations from a line existing backward in said sub-scanning direction by a predetermined number of lines to be read that is determined based on values of said M, said N, and said L from said first line to be normally read and performs reading operations up to a line existing forward in said sub-scanning direction by said predetermined number of lines to be read that is determined based on values of said M, said N, and said L; and

wherein said storing device stores only said pixel data obtained by reading lines to be normally read and output from said analog to digital converting circuit.

32. (New) The image reading apparatus according to claim 31,

wherein said reading means comprises a color reading device; and

wherein an image processing circuit for gray-level correction is provided between said storing device and said analog to digital converting circuit.

33. (New) An image reading apparatus for reading lines to be read on a surface of a document in a sub-scanning direction and outputting image signals obtained by reading said lines to be read, comprising:

a reading means having light sensing devices for simultaneously reading M (said M is a natural number being not less than two) pieces of lines to be read which are said lines to be read existing on said surface of said document and which are different lines in said sub-

scanning direction, each existing apart by N (said N is a natural number being not less than two) pieces of lines in said sub-scanning direction;

a moving means for moving one of said document and said reading means, every time said lines are simultaneously read, by L (said L is a natural number) pieces of said lines to be read, in said sub-scanning direction; and

an image signal outputting means for outputting said image signals of said lines to be read which have been read by said reading means in order of reading in said sub-scanning direction;

wherein values of said M, said N, and said L are set so that $M \geqq 2$, $1 < L < M$, and a greatest common measure of values of said L and said N equals one, and such that lines on said surface of said document are able to be read without omission of any of said lines to be read when sequential reading operations are performed from a first line to be read to a last line to be read on said surface of said document.

34. (New) The image reading apparatus according to claim 33, wherein said image signal outputting means includes:

an analog to digital converting circuit to analog to digital convert image signals of M pieces of lines to be read which have been output from said reading means;

a storing device to store pixel data obtained by conversion by said analog to digital converting circuit; and

a reading control circuit to read said pixel data stored in said storing device in order of reading in said sub-scanning direction.

35. (New) The image reading apparatus according to claim 34,

wherein said reading means starts said sequential reading operations from a line existing backward in said sub-scanning direction by a predetermined number of lines to be read that is determined based on values of said M, said N, and said L from said first line to be normally read and performs reading operations up to a line existing forward in said sub-scanning direction by said predetermined number of lines to be read that is determined based on values of said M, said N, and said L; and

wherein said storing device stores only said pixel data obtained by reading lines to be normally read and output from said analog to digital converting circuit.

36. (New) The image reading apparatus according to claim 35,

wherein said reading means comprises a color reading device; and

wherein an image processing circuit for gray-level correction is provided between said storing device and said analog to digital converting circuit.